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Docket:14558.01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:	Brian P. Giffin		
Appln. No.:	10/629,094		
Filed:	July 29, 2003	Examiner:	M. Deuble
Title:	System and Method for Transferring Blanks in a Production Line	Group Art Unit:	3651

RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF (37 C.F.R. 41.37)

Mail Stop Appeal Brief
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

I hereby certify that this document is being sent via First Class U.S. mail addressed to: Mail Stop Appeal Brief, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 22day of August, 2006.

Francis Ersle
(Signature)

Dear Sir:

In response to the Notice of Non-Compliant Appeal Brief, mailed on August 17, 2006, pursuant to 37 C.F.R. 41.37, Applicant submits herewith an Appeal Brief addressing the concerns laid out in the Notice of Non-Compliant Appeal Brief.

Respectfully submitted,

DORSEY & WHITNEY LLP
Customer Number 25763

Date: August 22, 2006

By: David N. Fronek
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Docket: 14558.01

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First Named Inventor:	Brian P. Giffin		
Appln. No.:	10/629,094		
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APPEAL BRIEF

Mail Stop Appeal Brief – Patents
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Francisco Erazo
(Signature)

Dear Sir:

Real Party In Interest

J&L Group International, LLC is the real party in interest as evidenced by the assignment recorded in the United States Patent and Trademark Office on July 29, 2003 at Reel/Frame: 014348/0842 from the inventor to J&L Development, Inc. and by the assignment recorded in the United States Patent and Trademark Office on May 23, 2006 at Reel/Frame: 017675/0956 from J&L Development, Inc. to J&L Group International, LLC.

Related Appeals and Interferences

No patent appeal or interference is known to appellant that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of the Claims

A listing of all claims in the present application including an indication of their status is set forth in the attached Appendix A. Of these, independent claim 9 and respective dependent claims 10-13 and 15 stand rejected, are the subject of this Appeal, and are listed separately in attached Appendix B.

Status of Amendments

No amendments have been filed subsequent to the final rejection of January 12, 2006.

Summary of Claimed Subject Matter

As described in the specification as filed and as shown in the drawings, the present invention is directed generally to a method of transferring articles in a conveyance mechanism from a slower moving conveyor to a faster moving conveyor in a manner which substantially eliminates the difference in conveyor speeds at the point of transfer. More specifically, with respect to independent claim 9, the invention is directed to a method of transferring blanks in a conveyance mechanism from a first conveyor traveling at a first velocity to a second conveyor traveling at a second velocity, with the second velocity being greater than the first velocity.

As shown best in the schematic illustrations of Figures 4A-4F, a plurality of blanks 50A, 50B, 50C, etc. are initially dispensed into a first conveyor 26. This first conveyor is traveling, and thus advancing the blanks, toward a second conveyor 30 at a first velocity. The second conveyor 30 is traveling at a second velocity which is greater than the first velocity. The system in which the method of the invention is practiced also includes a detector such as the photodetector 44 for detecting the position of a given blank as the plurality of blanks in the first conveyor 26 approach the second conveyor 30.

The first step in transferring a given blank from the advancing plurality of blanks of the first conveyor 26 to the second conveyor 30 is the step of detecting the position of a given blank (blank 50A) as shown in Figure 4B. The second step which follows detection of the position of the given blank and is in response to such detection, includes accelerating the first conveyor from its first velocity to substantially match the greater second velocity of the second conveyor 30. This is shown in Figure 4C. The third step includes transferring the given blank 50A from the first conveyor to the second conveyor as shown in Figure 4D. This transfer occurs when the first and second conveyors (26 and 30) are traveling at substantially the same speed. The fourth step includes decelerating the first conveyor 26 back to its first velocity. This deceleration is in response to the initial detection step and, because of the different velocities between the conveyors 26 and 30 following such deceleration, results in a gap between the transferred given blank 50A and the subsequent blank 50B. This is shown best in Figure 4E.

The entire transfer sequence including the detecting, accelerating, transferring and decelerating steps is then repeated for the next blank 50B (which then becomes the given blank) and for each blank thereafter. Accordingly, the blank transfer process of independent claim 9 for a given blank and for each subsequent blank is a four-step process, namely, (1) a detecting step, (2) an accelerating step, (3) a transferring step and (4) a decelerating step.

Grounds of Rejection To Be Reviewed On Appeal

Claims 9-12 stand rejected under 35 USC § 102(b) as being anticipated by Cordia et al. (U.S. Patent No. 5,341,915). While claims 13 and 15 stand rejected under 35 USC § 103(a) as being unpatentable over various prior art including Cordia et al., claims 13 and 15 are dependent claims which depend from independent claim 9. Accordingly, the allowance of independent claim 9 would necessarily result in the allowance of dependent claims 13 and 15 as well.

The Examiner's position is that Cordia et al. discloses a method which includes the four steps of detecting, accelerating, transferring and decelerating for a given blank as required by claim 9 and that such detecting, accelerating, transferring and decelerating steps are repeated for each subsequent blank. Applicant disagrees.

Argument

The single reference relied upon by the Examiner for the § 102(b) rejection of claims 9-12 is the Cordia Patent No. 5,341,915.

Independent claim 9 and dependent claims 10-12 are directed to a method of transferring blanks including, among other things, the steps of detecting, accelerating, transferring and decelerating with respect to a given blank and repeating such detecting, accelerating, transferring and decelerating steps for each subsequent blank. As set forth above, the Examiner's position is that Cordia discloses a method of delivering articles, which could be blanks, including the steps of detecting, accelerating, transferring and decelerating with respect to a given blank and repeating the steps of detecting, accelerating, transferring and decelerating for each subsequent blank. Applicant disagrees.

In Cordia et al., a series of conveyors is disclosed for transferring articles from an initial low friction accumulation conveyor 12 traveling at a velocity V_1 to a target conveyor 11 traveling at a faster velocity V_5. This series of conveyors includes a first phasing/transfer

conveyor 20 and a second phasing/conveyor 21. The conveyors 20 and 21 are the conveyors upon which the Examiner relies for his rejection. Each of the conveyors 20 and 21 includes a phasing conveyor and a transfer conveyor. Specifically, the conveyor 20 includes the phasing conveyor 25 and the transfer conveyor 26, while the conveyor 21 includes the phasing conveyor 22 and the transfer conveyor 23.

Both of the phasing/transfer conveyors 20 and 21 function in the same manner, with the velocities of each of their respective transfer conveyors 26 and 23 being constant and traveling at the same velocity V_5 as the target conveyor 11. In contrast, each of their respective phasing conveyors 25 and 22 is operated by a servo motor which can either accelerate the conveyors 25 or 22, decelerate the conveyors 25 or 22 or simply maintain the speed of the conveyors 25 or 22 at their current velocity. Only the operation of the phasing/transfer conveyor 21 will be discussed.

The main function of, for example, the phasing/transfer conveyor 21 is to transfer articles from the accumulation pre-phasing conveyor 15 in which adjacent articles are non-uniformly spaced, to the target conveyor in a manner which uniformly spaces adjacent articles a desired distance from one another. Specifically, the phasing/transfer conveyor 21, which is comprised of the phasing conveyor 22 and the transfer conveyor 23, receives articles from the accumulation conveyor 15 in which the spacing is not uniform, adjusts the spacing via the phasing conveyor 22 and accelerates the properly spaced articles via the transfer conveyor 23 to the velocity of the target conveyor. More specifically, articles are received by the phasing conveyor 22 from the accumulation conveyor 15 with non-uniform spacing. During travel of the articles along the phasing conveyor 22, a photocell P_1 detects the leading edge of each article. If the article is out of phase, such as being in a position along the flow path before or after where it should be (and thus does not exhibit the proper gap or spacing) relative to the immediate preceding article, the phasing conveyor 22 is either accelerated or decelerated momentarily as such article is being transferred to the faster moving transfer conveyor 23 so that following such transfer, the articles on the transfer conveyor 23 are properly spaced. For example, if adjacent articles are positioned on the phasing conveyor 22 in which the spacing is too close, the phasing conveyor 22 would be decelerated prior to transfer of the following detected article to the transfer conveyor so as to increase the spacing from the immediately preceding article. On the other hand, if two adjacent articles are spaced too far apart, the phasing conveyor will be accelerated immediately prior to

transfer of the following detected article to the transfer conveyor 23 so as to close the gap between such article and the immediately preceding article. If the gap between two articles on the phasing conveyor 22 are as desired, no speed adjustment is needed and thus the phasing conveyor 23 would be maintained at its then current velocity. In all cases, the transfer conveyor 23 travels at a constant velocity which is the same as the velocity V_5 of the target conveyor and at a velocity approximately 1.6 times the normal velocity V_3 of the phasing conveyor 22.

Accordingly, the transfer method of Cordia et al. is a three-step process. The first step is a detecting step in which the leading edge of a given article is detected. The second step is a step of acceleration, deceleration or maintenance of the conveyor at its then current velocity, depending upon the position of the detected article relative to the immediately preceding article. If the two articles are too closely spaced, the phasing conveyor 22 will be decelerated immediately prior to transfer so as to increase the gap to the desired distance. If the spacing is too large, the phasing conveyor 22 will be accelerated immediately prior to transfer so as to decrease the gap between adjacent articles. If the spacing between the detected article and its immediate preceding article is proper, no speed adjustment is necessary. The third step of Cordia et al. is the step of transferring the article from the phasing conveyor 22 to the transfer conveyor 23. This is accomplished with the phasing conveyor operating at various speeds (depending upon the second step), but with the transfer conveyor 23 operating at a faster constant speed and at the speed of the target conveyor.

Accordingly, the operation of the Cordia et al. transfer method and the transfer method of the present invention as set forth in independent claim 9 are completely different. First, in Cordia et al., the phasing conveyors 22 or 25 (corresponding to the first conveyor of claim 9) never are accelerated to the velocity of their respective transfer conveyors 23 or 26 (corresponding to the second conveyor of claim 9). In fact, the clear disclosure is that the velocity of the transfer conveyors 23 or 26 is constant and 1.6 times the velocity of their respective phasing conveyors 22 or 25.

Second, Cordia et al. does <u>not</u> disclose a method involving the steps of "detecting, accelerating, transferring and decelerating" with respect to each given blank. As disclosed in Cordia et al., as discussed in applicant's Response filed October 26, 2005, and as acknowledged by the Examiner, the phasing conveyors 22 and 25 of Cordia et al. are either accelerated, or decelerated, or maintained at the same velocity. Thus, as each article in the Cordia et al. system

is detected, the phasing conveyors are either accelerated or decelerated or maintained at the same velocity in response to the detecting step. Accordingly, for each article in the Cordia et al. system, there is a detection, followed by an acceleration or a deceleration or a maintenance at the same velocity and then followed by a transfer. The three-step cycle of (1) detecting, (2) accelerating, decelerating or maintenance at the same velocity and (3) transfer are then repeated for each successive article. In other words, there is no deceleration (or acceleration) step following the transfer step in Cordia et al. as is required by claim 9. In Cordia et al., it appears that as soon as the transfer is made, the phasing conveyor maintains its same speed until the detection of the next article is made. This detecting step is then again, depending upon the position of the detected article, either accelerated or decelerated or maintained at the same velocity, followed again by the transfer.

Third, in direct contrast to the above-described operation of Cordia, and as clearly required by claim 9, claim 9 requires that the first conveyor <u>always</u> be accelerated from the first velocity to the second velocity in response to the detecting step for a given blank and for each of the subsequent banks. Then, after transfer of the given blank, the first conveyor is decelerated to the first velocity, after which the cycle of detecting, accelerating, transferring and decelerating are repeated for each subsequent blank. Thus, the first conveyor, for each given blank and for each subsequent blank in accordance with claim 9 is subject to a four-step process of (1) detecting, (2) accelerating, (3) transferring and (4) decelerating, after which the process is repeated for each subsequent blank. As discussed above, this process is clearly different than the three-step process of Cordia et al. in which there is no deceleration (or acceleration) step following the transfer step and in which there is not <u>always</u> an acceleration step after the detection step. Instead, following the transfer, the next article is merely detected and the speed of the phasing conveyor is adjusted accordingly. Such adjustment could be acceleration, deceleration or no change at all.

In the rejection, the Examiner states that claim 9 only requires that the first conveyor be accelerated in response to the detecting step "for a number of subsequent blanks". This is not true. There is no language in claim 9 that requires the first conveyor to be accelerated in response to the detecting step "only for a number of subsequent blanks". In contrast, the last step of claim 9 requires "repeating said detecting, accelerating, transferring and decelerating steps <u>for each said subsequent blank</u>" (emphasis added). Further, in the "decelerating" step language,

"subsequent blank" is defined as being "immediately adjacent to said given blank". Thus, independent claim 9 requires the detecting step, the accelerating step, the transferring step and the decelerating step to be applied to the given blank and to each of the subsequent blanks.

Accordingly, neither independent claim 9 nor any of its dependent claims is anticipated by Cordia, et al. under 35 USC § 102(b).

Conclusion

In view of the foregoing, Applicant respectfully submits that the Examiner's rejection of claims 9-12 under 35 USC § 102(b) is without merit and should be reversed. Accordingly, the allowance of claims 9-12 as well as dependent claims 13 and 15 is respectfully requested.

Respectfully submitted,

DORSEY & WHITNEY LLP
Customer Number 25763

Date: August 22, 2006

By: David N. Fronek

David N. Fronek, Reg. No. 25,678
(612) 340-2629

APPENDIX A – STATUS OF ALL CLAIMS

1. (Allowed) A method of delivering blanks to a module, the method comprising:

providing a first conveyor capable of travel at a first velocity and a second velocity and capable of acceleration from said first velocity to said second velocity and deceleration from said second velocity to said first velocity;

sequentially dispensing a plurality of blanks onto said first conveyor;

detecting the position of one of said plurality of blanks;

accelerating the first conveyor, with said plurality of blanks thereon, in response to said detecting step to substantially match the velocity of a second conveyor when said one blank is at a preselected position on the first conveyor, said second conveyor traveling at said second velocity;

transferring at least a portion of said one blank from the first conveyor to the second conveyor when said first conveyor is traveling at said second velocity; and

reducing the velocity of the first conveyor, with said plurality of blanks thereon, to the first velocity after a predetermined period of time in response to said detecting step.

2. (Allowed) The method of claim 1, wherein the blanks are dispensed onto the first conveyor in an end-to-end relationship.

3. (Allowed) The method of claim 1, including repeating, detecting accelerating, transferring and reducing steps for the blank immediately adjacent to said one blank.

5. (Allowed) The method of claim 1, wherein said detecting step includes detecting the leading edge of said one blank.

6. (Allowed) The method of claim 1, including maintaining said first conveyor substantially at said second velocity between said accelerating and reducing steps

7. (Allowed) The method of claim 1 wherein said detecting step includes detecting by a photodetector.

8. (Allowed) The method of claim 1, wherein said second conveyor includes an upper belt, a lower belt and a nip point at the entry between said upper and lower belts and wherein transferring the blank includes passing the blank into said nip point, whereby the second conveyor maintains control of the blank after the first conveyor is reduced in velocity.

9. (Rejected) A method of transferring blanks in a conveyance mechanism, the method comprising:

dispensing a plurality of blanks from a feeder into a first conveyor, the blanks being dispensed into the first conveyor adjacent to one another in the direction of the travel of said first conveyor;

advancing the plurality of blanks by said first conveyor toward a second conveyor at a first velocity, said second conveyor traveling at a second velocity and said second velocity being greater than said first velocity;

detecting the position of a given blank of said plurality of blanks in said first conveyor as said given blank approaches said second conveyor;

accelerating the first conveyor from the first velocity to substantially match the second velocity in response to detecting the position of said given blank;

transferring said given blank from the first conveyor to the second conveyor after said accelerating step;

decelerating the first conveyor to the first velocity after said accelerating step and in response to detecting the position of said given blank so that said given blank and a subsequent blank in said first conveyor immediately adjacent to said given blank travel at different velocities after said transferring step; and

repeating said detecting, accelerating, transferring and decelerating steps for each said subsequent blank.

10. (Rejected) The method of claim 9, wherein decelerating the first conveyor occurs when a predetermined period of time has elapsed after said accelerating step.

APPENDIX A – STATUS OF ALL CLAIMS

11. (Rejected) The method of claim 10, including calculating the predetermined period of time with a controller.

12. (Rejected) The method of claim 11, wherein the calculating step is based on a length of said given blank, the first velocity and the second velocity.

13. (Rejected) The method of claim 11, further comprising:

entering a blank length into the controller;

entering the first velocity into the controller; and

entering the second velocity into the controller, wherein the controller utilizes the blank length, the first velocity and the second velocity to calculate the predetermined period of time.

14. (Allowed) A method of transferring blanks in a conveynance mechanism, the method comprising:

entering a blank length into the controller;

entering a first velocity into the controller; and

entering a second velocity into the controller, wherein the controller utilizes the blank length, the first velocity and the second velocity to calculate a predetermined period of time;

dispensing a plurality of blanks from a feeder into a first conveyor, the blanks being dispensed into the first conveyor adjacent to one another in the direction of the travel of said first conveyor;

advancing the plurality of blanks by said first conveyor toward a second conveyor at a first velocity, said second conveyor traveling at a second velocity and said second velocity being greater than said first velocity;

detecting the position of a given blank of said plurality of blanks in said first conveyor as said given blank approaches said second conveyor;

accelerating the first conveyor from the first velocity to substantially match the second velocity in response to detecting the position of said given blank;

transferring said given blank from the first conveyor to the second conveyor after said accelerating step;

decelerating the first conveyor to the first velocity after said accelerating step and in response to detecting the position of said given blank so that said given blank and a subsequent blank in said first conveyor immediately adjacent to said given blank travel at different velocities after said transferring step; wherein the method includes calculating the predetermined period of time with a controller based on the length of said given blank, the first velocity and the second velocity and wherein decelerating the first conveyor occurs when a predetermined period of time has elapsed after said accelerating step, wherein decelerating the first conveyor occurs when a predetermined period of time has elapsed after said accelerating step and wherein the controller automatically reduces the first velocity if the controller determines that the first conveyor is incapable of accelerating and decelerating within one blank length.

15. (Rejected) The method of claim 9 wherein said second conveyor includes upper and lower belt members and a nip and the transferring step occurs by conveying said given blank into said nip.

APPENDIX B – STATUS OF APPEAL CLAIMS

9. (Rejected) A method of transferring blanks in a conveyance mechanism, the method comprising:

dispensing a plurality of blanks from a feeder into a first conveyor, the blanks being dispensed into the first conveyor adjacent to one another in the direction of the travel of said first conveyor;

advancing the plurality of blanks by said first conveyor toward a second conveyor at a first velocity, said second conveyor traveling at a second velocity and said second velocity being greater than said first velocity;

detecting the position of a given blank of said plurality of blanks in said first conveyor as said given blank approaches said second conveyor;

accelerating the first conveyor from the first velocity to substantially match the second velocity in response to detecting the position of said given blank;

transferring said given blank from the first conveyor to the second conveyor after said accelerating step;

decelerating the first conveyor to the first velocity after said accelerating step and in response to detecting the position of said given blank so that said given blank and a subsequent blank in said first conveyor immediately adjacent to said given blank travel at different velocities after said transferring step; and

repeating said detecting, accelerating, transferring and decelerating steps for each said subsequent blank.

10. (Rejected) The method of claim 9, wherein decelerating the first conveyor occurs when a predetermined period of time has elapsed after said accelerating step.

11. (Rejected) The method of claim 10, including calculating the predetermined period of time with a controller.

12. (Rejected) The method of claim 11, wherein the calculating step is based on a length of said given blank, the first velocity and the second velocity.

13. (Rejected) The method of claim 11, further comprising:

entering a blank length into the controller;

entering the first velocity into the controller; and

entering the second velocity into the controller, wherein the controller utilizes the blank length, the first velocity and the second velocity to calculate the predetermined period of time.

15. (Rejected) The method of claim 9 wherein said second conveyor includes upper and lower belt members and a nip and the transferring step occurs by conveying said given blank into said nip.

APPENDIX C- EVIDENCE APPENDIX

None

APPENDIX D – RELATED PROCEEDINGS APPENDIX

None